SAF-B00-004
Industrial Hygiene Sampling – Airborne
FINAL DATA

ORIGINAL MUST BE SENT TO CLIENT SAMPLE MANAGEMENT KEEPS A COPY

COMPLETE DATA PACKAGE TO:

Denise Pitts X2-09 ___NB/11/29/04_
INITIAL/DATE

COMMENTS: (PLEASE INCLUDE THE FOLLOWING ON THE FAX COVER SHEET)

SDG ___(D00455) SAF-B00-004

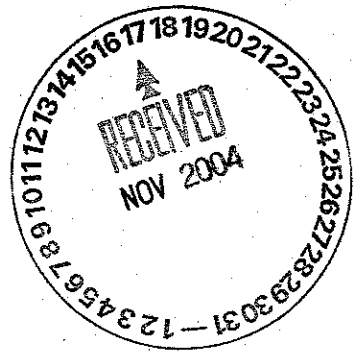
Rad only X Chem only Rad & Chem

X Complete Partial

304

DATA CHEM LABORATORIES

Cover Page



Report Identification Number: 04I-3680-01
Subcontract Number: 0000X-BO-G0058-B-Mod#3
Name of Industrial Hygienist: Henry W. Ruby and Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: B00-004; B00-005
Payroll #: 72520/73399

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Line Item Code (LIC)	Analytical Batch Identification	Sample Matrix
15-NOV-2004	J02030	04I34478	NMAM 7300M	G04BH01C	MCE-AirFilters
15-NOV-2004	J02031	04I34479	NMAM 7300M	G04BH01C	MCE-AirFilters
15-NOV-2004	J01WY0	04I34480	NMAM 7300M	G04BH01C	MCE-AirFilters
15-NOV-2004	J02028	04I34481	NMAM 7300M	G04BH01C	MCE-AirFilters

I certify that this electronic image and all hardcopies produced from this image accurately represent the data and are in compliance with the RFETS specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager or the Manager's designee.

Name: Michelle Paradise
Title: Chemist
Date: November 17, 2004

D00455

B00-004/005
Lab emailed directly to client

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Case Narrative Page

Report Identification Number: 04I-3680-01
Subcontract Number: 0000X-BO-G0058-B-Mod#3
Name of Industrial Hygienist: Henry W. Ruby and Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: B00-004; B00-005
Payroll #: 72520/73399

General Set Information: There were 10 samples analyzed in this batch. There were four samples in set 04I-3680-01 and six samples in set 04I-3680-02 analyzed for beryllium on MCE filters by ICP. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Sample was transferred to 50 ml centrifuge tube and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Sample was digested in a hot block at 110°C for 40 minutes. Sample was then diluted to volume with ASTM Type II Water. Sample was shaken and delivered vials for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of ± 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.02 ug/sample.

Method Blank Analysis: No beryllium was found in the media blank samples above the Contract Required Detection Limit (CRDL).

Dilution(s): None of the samples were diluted.

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS result is within control limits of ± 20%. The Relative Percent Difference (RPD) between the LCS and LCSD is within the control limit of 20%.

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Case Narrative Page

Replicate Analysis: One sample in this batch was replicated. The RPD between the sample and the replicate is within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes:

U - Analyte not detected above the Method Detection Limit (MDL) of 0.004 ug/sample.
J - Analyte result is reported above the Method Detection Limit (MDL) of 0.004 ug/sample, but below the Contract Required Detection Limit (CRDL) of 0.02 ug/sample.

Nonconformance/Corrective Action Report (NC/CAR): None.

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples (µg/sample) = (A) x (B) x (C)

Where:
A = Analyte concentration from instrument determination (µg/L)
B = Concentration factor from sample preparation
= Final Volume of Digestate (L) / Sample
C = Dilution performed at time of analysis

Example Calculation: (1 µg/L) x (0.025 L/sample) x (1) = 0.025 µg/sample

Miscellaneous Comments: None.

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Report Page

Report Identification Number: 04I-3680-01
Subcontract Number: 0000X-BO-G0058-B-Mod#3
Name of Industrial Hygienist: Henry W. Ruby and Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: B00-004; B00-005
Payroll #: 72520/73399

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/M3		Beryllium µg/sample	
J02030	04I34478	16 Nov 2004	<3.1E-6	U	<0.02	U
J02031	04I34479	16 Nov 2004	<2.8E-6	U	<0.02	U
J01WY0	04I34480	16 Nov 2004	**		<0.02	U
J02028	04I34481	16 Nov 2004	**		<0.02	U
		Limit of Detection (LOD)			0.004	
		Required Detection Limit (RDL)			0.02	

U - Parameter not detected above LOD.
J - Parameter between LOD and RDL.

QC Summary Page

Report Identification Number: 04I-3680-01
Subcontract Number: 0000X-BO-G0058-B-Mod#3
Name of Industrial Hygienist: Henry W. Ruby and Denise A. Pitts
Laboratory Identification Number: DCHM
SAF#: B00-004; B00-005
Payroll #: 72520/73399

Batch ID: G04BH01C

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-225663-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-225663-1	LCS	Beryllium	µg/sample	10.0	NA	10.00	100	NA
QD-225663-1	LCSD	Beryllium	µg/sample	9.99	10.0	10.00	99.	0.175

MB - Method Blank
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
LD - Laboratory Duplicate

NA - Not Applicable
ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0
MS, MSD Percent Rec. = ((Result – Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS – LCSD|) / ((LCS + LCSD)/2.0)) * 100.
MS, MSD Relative Percent Diff. = ((|MS – MSD|) / ((MS+ MSD)/2.0)) * 100.
LD Relative Percent Diff. = ((|Parent – LD|) / ((Parent + LD)/2.0)) * 100

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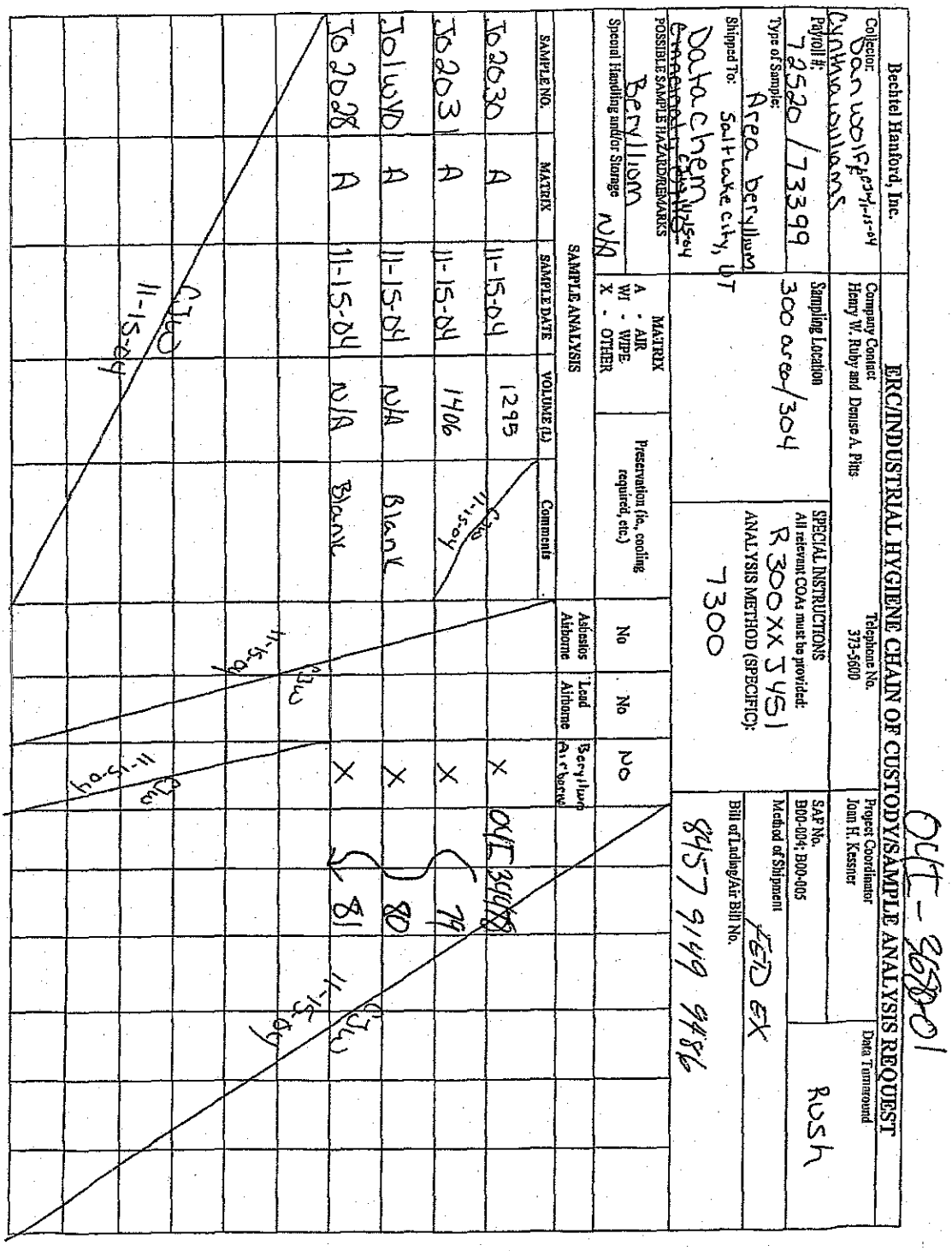
COC Page



Bechtel Hanford, Inc.

ERC/INDUSTRIAL HYGIENE CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Dan Wolfe/Cynthia Williams
Company Contact: Henry W. Ruby and Denise A. Pitts
Telephone No.: 373-5600
Project Coordinator: Joan H. Kessner
Data Turnaround: Rush

Payroll #: 72520 / 73399
Sampling Location: 300 area/304
SAP No.: B00-004; B00-005

Type of Sample: Area beryllium
Shipped To: Datachem Salt Lake City, UT
Method of Shipment: FED EX

POSSIBLE SAMPLE HAZARD/REMARKS: Beryllium
Special Handling and/or Storage: N/A
Bill of Lading/Air Bill No.: 8457 9119 9486

MATRIX: A - AIR, WI - WIPE, X - OTHER
SPECIAL INSTRUCTIONS: All relevant COAs must be provided: R300XX3451
ANALYSIS METHOD (SPECIFIC): 7300

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L)	Preservation (ie., cooling required, etc.)	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	
SAMPLE ANALYSIS						No	No	No	
J02030	A	11-15-04	1295		11-15-04			X	OUT 34078
J02031	A	11-15-04	1406		11-15-04			X	79
J01WD	A	11-15-04	N/A		Blank			X	80
J02028	A	11-15-04	N/A		Blank			X	81

11-15-04 11-15-04 11-15-04 11-15-04 11-15-04

BHI-SH-202 (07/28/2004)

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ERC/INDUSTRIAL HYGIENE CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Cynthia Williams Cynthia Williams	11-15-04 / 1300	locked vehicle	11-15-04 / 1300
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
locked vehicle Jeff Brunson	11-15-04 / 1330	Jeff Brunson Jeff Brunson	11-15-04 / 1330
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Jeff Brunson Jeff Brunson	11-15-04 / 1340	SCALE	11/504 1340
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
SCALE	11/504 1530	FED EX	
Relinquished By/Stored: Fed Ex	DATE / TIME	Received By/Stored: Kevin Griffith	DATE / TIME 11-16-04-10:40
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____

PRINT/SIGN NAME

BHI-SH-202 (07/28/2004)

Page 1 of 2 11-15-04

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